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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/086,627	05/29/98	BOLAND V	7675

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EXAMINER	
EDELMAN, B	
ART UNIT	**PAPER NUMBER**
2757	6

DATE MAILED: 08/23/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/086,627	Boland
Examiner	**Group Art Unit**
Bradley Edelman	2757

☒ Responsive to communication(s) filed on *Jun 28, 2000*

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-13* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-13* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 7, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumimoto (U.S. Patent No. 5,522,070), in view of Hauser et al. (U.S. Patent No. 5,889,956, hereinafter "Hauser").

In considering claims 1 and 11-13, Sumimoto discloses a method, a computer architecture, a computer system, and an article comprising machine executable instructions, for allocating network resources on a computer network, comprising:

means for monitoring at least two nodes on the computer network among at least a first process and a second process for allocation of computer resources on each of the at least two nodes (col. 6, lines 25-32).

However, Sumimoto fails to disclose for the first process, means for setting a minimum resource allocation for the first process on the at least two nodes independent of the computer resources needed by other processes and processes running on the computer network. Nonetheless, minimum resource allocation in a distributed processing system is well known, as

evidenced by Hauser. The inventions of Sumimoto and Hauser are related art because they both incorporate resource allocation in a distributed network. Thus, in a similar art, Hauser describes a system for allocating network resources in computer network, wherein the requesting entities specify a minimum resource allocation, which guarantees a minimum allocation of resources for each requesting entity (col. 5, lines 2-5). A person having ordinary skill in the art would have readily recognized the desirability and advantages of allocating a minimum amount of resources, as taught by Hauser, for each process in the distributed processing system taught by Sumimoto, so that important processes can run even when the network is severely congested. Therefore, it would have been obvious to use minimum resource allocation as taught by Hauser, in the system taught by Sumimoto.

In considering claim 2, Sumimoto further discloses the allocation being an allocation of computers and memory space on the network for the first process (col. 17, lines 57-63).

In considering claim 3, Sumimoto further discloses denoting usage of resources as a percentage (col. 16, lines 11-12). Therefore, it would have been obvious to denote the minimum allocation, as taught by Hauser, as a percentage of the resources, so that an increase in the resources available will result in increased allocation for each process.

In considering claim 4, Sumimoto further discloses performing the monitoring step periodically (col. 17, lines 60-63).

In considering claim 5, Sumimoto further discloses denoting usage of resources as a percentage. Therefore, it would have been obvious to denote the minimum allocation, as taught by Hauser, as a percentage of the resources, so that an increase in the resources available will result in increased allocation for each process. Further, although Sumimoto does not disclose continually monitoring the nodes, it would have been obvious to continually monitor the nodes so that processes would remain optimally allocated at all times, thereby increasing network efficiency.

In considering claim 7, Hauser further discloses setting a maximum resource allocation for at least one process (col. 4, lines 53-56). Given the teaching of Hauser, a person having ordinary skill in the art would have readily recognized the desirability and advantages of including a maximum resource allocation, as taught by Hauser, in the system taught by Sumimoto so that no one process could overwhelmingly occupy the system's resources. Therefore, it would have been obvious to include maximum resource allocation, as taught by Hauser, in the system taught by Sumimoto.

In considering claim 9, Hauser further discloses storing the minimum resource allocation in a storage device (col. 6, line 37). It would have been obvious to store the minimum resource allocation in a storage device so that allocation values can be viewed and manipulated for optimal dynamic system resource allocation.

In considering claim 10, Sumimoto further discloses monitoring being performed by any of the nodes on the computer network (Fig. 3, Fig. 22, col. 17, lines 57-60, "LM").

3. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumimoto, in view of Hauser, and further in view of Culbert (U.S. Patent No. 5,838,968).

In considering claim 6, although the combined teaching of Sumimoto and Hauser discloses substantial features of the claimed invention, it fails to disclose redistributing computer resources on the network so that the first processor is provided the minimum resource allocation. Nonetheless, redistributing computer resources in a processing system is well known, as evidenced by Culbert. The inventions disclosed by Sumimoto, Hauser, and Culbert are all related art because they all incorporate resource allocation in a distributed network. Thus, in a similar art, Culbert discloses a resource allocation system that controls resource availability to multiple tasks, wherein tasks requiring more resources than are currently available can cause resources to be redistributed on the computer system (col. 9, lines 36-54). Given the teaching of Culbert, a person having ordinary skill would have readily recognized the desirability and advantages of

redistributing computer resources, as taught by Culbert, in the resource allocation computer network taught by Sumimoto and Hauser, to allow the most important processes to gain access to resources regardless of potential network congestion. Therefore, it would have been obvious to include redistribution of resources, as taught by Culbert, in the resource allocation system taught by Sumimoto and Hauser.

In considering claim 8, although the combined teaching of Sumimoto and Hauser discloses substantial features of the claimed invention, it fails to disclose assigning a priority to at least two processes in the system, the second process being assigned a lower priority than the first processing and setting a minimum resource on the at least first and second processes independent of the computer resources needed by other processes on the network, with the exception of the first process. Nonetheless, the use of prioritized resource allocation in a computer system, used in conjunction with a minimum resource allocation for individual processes is well known, as evidenced by Culbert. In a similar art, Culbert discloses a resource allocation system that controls resource availability to multiple tasks, wherein tasks requiring more resources than are currently available can cause resources to be redistributed on the computer system, according to a priority level (col. 9, lines 16-54). Given the teaching of Culbert, a person having ordinary skill would have readily recognized the desirability and advantages of assigning priority levels to processes, as taught by Culbert, in the resource allocation computer network taught by Sumimoto and Hauser, to allow the more important processes to gain access to resources regardless of potential network

congestion. Therefore, it would have been obvious to include prioritization of processes, as taught by Culbert, in the resource allocation system taught by Sumimoto and Hauser.

Response to Arguments

In response to Applicant's request for reconsideration filed on June 28, 2000, the following factual arguments are noted:

a. There is no teaching or suggestion in either Sumimoto or Hauser for modifying Sumimoto to provide for a fixed predetermined amount of computer resources to be allocated to a single process, as claimed in claims 1 and 13.

b. Hauser does not provide computer resources for a process, as claimed in claims 1 and 13, but rather provides computer resources to an entity.

c. There is no teaching or suggestion in Culbert to statically allocate minimum resources for a given process to avoid having to compute a resource allocation for a particular process.

In considering (a), Applicant contends that there is no teaching or suggestion in either Sumimoto or Hauser for modifying Sumimoto to provide for a fixed predetermined amount of computer resources to be allocated to a single process, as claimed in claims 1 and 13. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, although the motivation to combine is not mentioned in the references themselves, it would have been obvious to a person of ordinary skill in the art to recognize the minimum guaranteed resource allocation scheme taught by Hauser as a highly advantageous addition to the resource allocation scheme taught by Sumimoto so that top priority processes would be guaranteed resource availability.

In considering (b), Applicant contends that Hauser does not provide computer resources for a process, as claimed in claims 1 and 13, but rather provides computer resources to an entity. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus, although Hauser does not discuss resource allocation for processes, Sumimoto does. Therefore the combination of the references renders Applicant's claimed invention obvious, as previously described.

In considering (c), Applicant contends that there is no teaching or suggestion in Culbert to statically allocate minimum resources for a given process to avoid having to compute a resource allocation for a particular process. Again, one cannot show nonobviousness by attacking

references individually where the rejections are based on combinations of references. Although Culbert does not disclose allocating minimum resources for a given process, the combined teaching of Sumimoto and Hauser does. Therefore the combination of the references renders Applicant's claimed invention obvious, as previously described.

In response to Applicant's arguments that the cited references disclose dynamic resource allocation, which Applicant's invention avoids, it is noted that the features upon which applicant relies (i.e., dynamic resource allocation - or its avoidance) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, it is possible for a system to include both dynamic resource allocation and guaranteed minimum resource allocation, as evidenced by Hauser. Therefore, the fact that a resource allocation system is dynamic does not preclude it from allowing minimum allocation for specific processes.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Edelman whose telephone number is (703) 306-3041. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess, can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7201.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-3900.

BE

August 17, 2000

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
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